

53. *Watery Discharge from the Uterus During Pregnancy.*—Dr. HARVEY made the following remarks on this affection at a meeting of the Cork Med. and Surg. Soc., Dec. 9, 1857: "In some books on Midwifery, watery discharge from the uterus is noticed as amongst the diseases to which pregnant women are liable. A clear, limpid, colourless fluid, oozing in quantity from a few ounces to pints daily, flows away, sometimes stopping for a short time, and recommencing; and in the majority of cases it continues nearly, or fully to the time of delivery. The abdomen does not appear palpably reduced by these discharges, and a living child is commonly born at or near the full time. In the greater number of instances, also, there is evidence of the usual quantity of liquor amnii being present on the supervention of labour. Dr. Alexander's case, given in the third volume of the *Medical Commentaries*, shows this very prominently. In a case by Dr. Petel, also, in the *Gazette des Hôpitaux* of July, 1838, the liquor amnii is specially mentioned as normal in quantity.

"What is the source of this fluid, discharged, as it is, to the amount of hundreds of pints in the course of a few months? The supposition of its coming from the cervical glands of the uterus, or from the vagina, both of which have been assumed as sources of it by different authorities, appears altogether unlikely from the nature of the fluid, its quantity, and its mode of coming away in gushes of considerable quantity at a time. That it could come from the space between the decidua and chorion, or between the chorion and amnion, we have no pathological facts, so far as I am aware, to warrant our supposing such a source for the flow; whilst in the natural condition of parts such spaces do not exist; as, at a period of pregnancy before these discharges commonly show themselves (say the sixth month, or thereabouts), the cavity between the chorion and amnion has disappeared; and we know that the chorion and decidua are in contact throughout.

"Under these circumstances we seem driven to the conclusion that the amnion must be the source of this flow; that there may be occasional solutions of continuity in this membrane, admitting of discharges from time to time, which either close again, or admit by the mechanical relations of the bag to the neighbouring parts of the amnion, refilling to a certain extent by a fresh secretion of its peculiar fluid. In confirmation of this view may be mentioned cases recorded by Dr. Denman, Professor Burns, of Glasgow, and Dr. Pentland, of Dublin, in which the amnion is said to have given way from fright, or other sudden shock, the waters being discharged without labour coming on. All these considerations tend rather to the view that the escaping fluid may be liquor amnii than to any other which has been propounded. In the case which I am going to relate the symptoms were similar to those which were present in the cases of watery discharge which I have been noticing, and in this instance, as will be seen, the flow was undoubtedly amniotic.

"Mrs. ———, mother of several children, was, for more than a year, the subject of heavy sanguineous discharges, which were so little influenced by the treatment adopted that the existence of polypus was thought possible. An examination revealed considerable congestion of the os and cervix uteri, with superficial ulceration, which gave way to treatment generally and locally applied. During last summer her health was considerably improved, but occasionally menorrhagic attacks, which latterly observed more or less closely the monthly periods, showed themselves. Matters were going on thus when she suffered a considerable shock by her eldest boy meeting with a severe accident, in which his arm was fractured. On that day, for the first time (six weeks before delivery), she had a sudden gush of clear watery fluid from the vagina, and since that time to the date of these notes (5th November), she was scarcely free from it; it would diminish or nearly stop for a few days at a time, to come on again in gushes, and in considerable quantity. The quantity escaping in one of these was seldom less, and generally more, than half a pint; and on the late occasion, when the flow was accompanied by a heavy sanguineous discharge also, she thinks the combined amount was fully a quart. It came on in the horizontal position as well as in the erect, and apparently without any cause. The size of the abdomen did not appear much affected by these at any time.

"The occurrence of the watery discharge suggesting the probability of preg-

nancy, notwithstanding the menstrual changes which had been going on with some regularity, and that, if pregnancy did exist, the ovum might have suffered hydatid degeneration, I proposed an examination for the purpose of ascertaining the point. I found an abdominal tumour occupying the hypogastrium to above the umbilicus, and on laying my hands over its surface, it gave a good example of the value of a diagnostic indication lately suggested by Dr. Oldham; it afforded distinct evidence of its being uterine by gradually and regularly hardening under my hand. The movements of the child were also felt, and foetal pulsation, distinctly heard by the stethoscope, put an end to all doubts.

"I told the lady that she had passed some six or near seven month of her pregnancy without being aware of it, and that her labour would probably come on prematurely, all of which she entirely disbelieved, and I could not induce her to make the necessary preparations. Two days after, I was called to her—the first stage of labour having set in with unusual distress and irritation; the pains peculiarly sharp and unbearable; the os uteri was hard and unyielding, and the breech, presenting in the second position, was felt in close contact. I immediately put her on antimonial solution, notwithstanding which the os uteri took over three hours to relax. After a first stage of about four and a half hours, and a second of less than half an hour, a male child, of scarcely seven months' growth, was born. The presenting hip and buttock were perfectly black, evidently from the direct pressure to which they had been subjected, in consequence of the loss of the liquor amnii. None whatever escaped with the child, and the sanguineous discharge was also unusually scanty. I do not think I ever witnessed so dry a labour."—*Dublin Quart. Journ. Med. Sci.*, Feb. 1858.

54. *On the Action of Galvanism upon the Contractile Structure of the Gravid Uterus, and its Remedial Powers in Obstetric Practice.*—Dr. F. W. MACKENZIE read before the Royal Medical and Chirurgical Society, Feb. 23d, 1858, an interesting paper on this subject.

In his introductory remarks, he drew the attention of the Society to the present state of professional opinion respecting the effective and remedial powers of galvanism upon the gravid uterus, and he pointed out the very different conclusions which different observers had arrived at. In this divided state of opinion, it had appeared to him that some further investigations might be usefully undertaken, and he submitted that two questions of a preliminary nature require to be decided before the agent could be satisfactorily employed in midwifery: 1st. The nature of the influence exercised by it upon the contractile structure of the gravid uterus; and 2d. The best mode of applying it so as to obtain the full benefit of such influence. Believing that these questions could not be satisfactorily solved by observations made exclusively upon the human female, the author had planned and instituted some experiments upon the gravid uterus of the lower animals, in which the organ was exposed, and the exact influence exercised by it was observed. From these experiments, it was shown that galvanism exercises a remarkable and peculiar influence upon the uterine fibre, and it further appeared, after many observations, that this was most powerfully exercised when the galvanic current was directed longitudinally through the uterus from the upper portion of the spinal cord in a sustained and continuous manner. The local application of galvanism to the uterus was less effective; individual shocks produced no appreciable effect upon it, and a current directed transversely through the organ produced only a partial contraction of it in the direction of the current. Guided by the information thus obtained, the author had employed galvanism in the manner suggested by these inquiries in several very critical cases with remarkable success. The first referred to was that of a lady who had repeated floodings, in connection with an early abortion, owing to an imperfect separation and expulsion of the ovum. In this, every available means had been tried to stimulate the uterus and control hemorrhage without success, and the patient's condition had, at length, become highly critical. In this emergency, a sustained current of electricity was directed longitudinally through the uterus from the upper portion